# Period One-Project Plan

## Goals and Tasks for 2018-2019

Game Goals and Tasks	Deadlines
<ol> <li>Assign people to different parts of the project</li> </ol>	20-12-2018
a. Understand and identify teammates strengths and weaknesses with discussion	18-12-2018
b. Train teammates to learn the basics of other tasks in the group like programming in C	8-2-19
c. Set up leaders for each task	20-12-2018
2. Understand the anatomy of the game board	22-12-2018
a. Develop ways to utilize the game board to its fullest potential by drawing on A3 possible paths	22-12-2018
b. Understand the dangers and risky areas of the board and make of list of things to avoid	20-12-2018
3. Create and devise strategies to accumulate the most points	30-12-2018

a. Identify objects or targets to obtain as many points as possible, make a list so that a plan A, B and C can be developed	26-12-2018
b. Combine points and targets in one strategy so that coding can begin	30-12-2018

Robot Building Goals and Tasks	Deadlines
<ol> <li>Brainstorm ideas to maximize amount of points that can be collected with the robots designs</li> </ol>	21-12-2018
a. Everybody contributes ideas or designs for building the robots through discussion	21-12-2018
i. Draw on A3 paper what the Wallaby could look like	21-12-2018
ii. Draw on A3 paper what the iRobot could look like	21-12-2018
b. Create a supportive team environment by valuing other teammates contributions for ideas	21-12-2018

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2. Design a draft on paper to predict how our robots will work	6-1-2019
a. Create strategies for the Wallaby (Little Guy) to solve the board from highest possible score to just getting points on the board	6-1-2019
b. Create strategies for the iRobot (Cinderella) to solve the board from highest possible score to just getting points on the board	6-1-2019
3. Build the robots in a creative way to accumulate the biggest amount of points available	30-1-2019
a. Identify and engineer parts of Little Guy so that it can move fast and creatively collect points	15-1-2019
i. Build a pushing mechanism	30-1-2019
ii. Add touch sensors	30-1-2019
b. Identify and engineer parts of Cinderella so that sensors can find stuff fast and collect points creatively	30-1-2019

i. Build a lifting device	30-1-2019
ii. Add a clamping or holding device	30-1-2019
c. Combine as many ideas as possible to produce high-quality robots	30-1-2019

Programming Goals and Tasks	Deadlines
1. Get the team to understand the basics of programming	10-1-2019
a. Learn the point or idea of programming	2-1-2019
i. Whole team to practice the code given during the workshop	16-1-19
ii. Programming leaders to start developing code for sensors and more advanced parts	2-1-2019
b. Learn the basic structure of language C	9-1-2019
i. Whole team to scrutinize the code from the workshop and start adapting it	9-1-2019

2. Complete code for little guy junior (Wallaby)	20-2-2019
a. Code Little Guy to recognise and push supplies and the ambulance to its place	10-2-2019
b. Code Little Guy to save the people on the buildings	15-2-2019
3. Complete code for Cinderella (I-Robot)	20-2-2019
a. Code Cinderella to avoid bumping into Little Guy	20-1-2019
b. Code Cinderella to pick up botguy and FEMA director	30-1-2019
c. Code Cinderella to place firefighters on building	30-1-2019
d. Code Cinderella to grab water with claw	30-1-2019

Documentation Goals and Tasks	Deadlines
1. Finish the Documentation for First Period	28-12-2018

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a. Team completes the Project Plan doing a collaborative Google doc	20-12-2018
b. Team proofreads plan and finalise it	24-12-2018
c. Team leader submits Project plan	28-1-2019
2. Finish the documentation for Second Period	17-2-2019
a. Document leader completes the mechanical design with the help of the rest of the team	15-1-2019
b. Programming leaders complete the code review with the help of the rest of the team	15-1-2019
c. Team leader submits mechanical design and code review	17-1-2019
3. Finish the documentation for Third Period	25-1-2019
a. Team completes lessons learned	18- 25-1-2019
b. Team completes survey	24-1-2019

c. Team leader submits	25-1-2019
lessons learned and survey	
documentation	

Schedule Conflicts	Dates
1. Qatar National Day	18-12-2018 no school
2. Winter Holidays	23-12-2018 to 6-1-2019 no school
3. Mock Exams (all year 12 students: Marco, Jerick, Ahmed, and, Abdelrahman will have reduced availability)	13-1-2019 to 24-1-2019,
4. Other After School Activities- People with other After School Activities won't be able to attend some of Botball meetings. Academic revision clubs and practical Science for AS - all year 12 Marco, Jerick, Ahmed, Abdelrahman	6-1-2019 to 24-1-2019
5. Exam week	13-1-19 to 24-1-19

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#### **Team Organization**

#### Schedule of Meeting Times

Qatar Workshop at Carnegie Mellon - Nov. 30 Dec. 1, 2018 Qatar Tournament - Feb. 8,2019

Meeting Days- Sundays and Wednesdays Each meeting will run from 2:00 pm to 3 pm

Nov. 21, 25, 28 Dec. 2, 5, 9, 12, 16, 19, 20 Jan. 2, 6, 9, 13, 16, 20, 25, 27, 30 Feb. 1, 2, 3, 4, 5, 6, 7

#### **Division of Labor**

Role	Team Member
Adult Team Leader	Ms. Renee, Ms. Nandia, Mr.Simon
Student Team Leader	Sofiia
Documentation Team	All, but lead by Essraa
Programming for Little Guy Jr	Essraa
Programming for Cinderella	Marco and Khalid
Engineer for Little Guy Jr	Yahya, Azhirim and Jerick
Engineer for Cinderella	Sofiia and Jerick

### **Conflict Resolution**

- Given if a disagreement occurs, then all team members will work together to find a solution for the disagreement. Team members will take all ideas in consideration and evaluate if achievable
- 2. Team members will respect others and will take turns to hear each other out to avoid confusion and miscommunication
- 3. Team members will work together to define the obstacles that makes them struggle for attention
- 4. Meetups are planned on days where it fits members' schedule to assure more showups
- 5. Roles are assigned to members with better experience in the field. Specialization.
- 6. Design of robot settled by how useful, achievable, effective and reliable it is (by group vote and analysis breakdown of build)
- 7. Members will be taught basics of every field to prevent fallbacks whenand if a another member is unable to attend
- 8. If a team member is found skipping meetings purposely, then they will get a first and final warning.
- 9. If the team member still skips Botball meetings purposely, then that team member will be removed out of the team.